

Abstract

The object of the invention is the provision of a semiconductor memory having processor and memory integrally mounted on one chip. To attain the
5 object, crossbar wirings are laid on the memory cell area and crossbar switches are disposed in the sense amplifier area or word driver area. Accordingly, memory sharing is made possible without increasing the chip area and it is also made possible to take out a large number of data continuously. Hence, a memory-embedded system with a high bandwidth
10 can be provided.